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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Reinhard Weiberle

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EXAMINER

RIZK, SAMIR WADIE

ART UNIT

PAPER NUMBER

2112

MAIL DATE

DELIVERY MODE

09/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,634	<b>Applicant(s)</b> WEIBERLE ET AL.	
	<b>Examiner</b> SAM RIZK	<b>Art Unit</b> 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/19/2005</u> .                                              | 6) <input type="checkbox"/> Other: _____                          |

***DETAILED ACTIONS***

- Claims 15-28 have been submitted for examination
- Claims 1-14 have been cancelled
- Claims 15-28 have been rejected

***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are
  - a) Hand drawn;
  - b) Figure 2 must be presented in English. Several references are in German.Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p) (5) because they do not include the following reference sign(s) mentioned in the description: reference (ff) in page 4, line 30. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the

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sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to under 37 CFR 1.71, as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood:

a) What is "n-of-m" test in page 2, line 8 and page 6, line 4?

b) what is "1 of K codes" in page 2, line 11 and page 6, line 8?

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 15-28 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Tsuchiya US patent no. 5345582 (Hereinafter Tsuchiya).
5. In regard to claim 15, Tsuchiya teaches:
  - (New) A method for performing an error detection in a cache memory for storing data, the access to the data stored in the cache memory taking place by addresses assigned thereto, comprising:
  - for the addresses assigned to the stored data, generating and storing in the cache memory at least one first test signature made up of at least one first signature bit.

(Figure 1a, ref. (34 & 78) in Tsuchiya)
6. In regard to claim 16, Tsuchiya teaches:
  - (New) The method as recited in Claim 15, further comprising:
  - checking the first test signature for each read access to the cache memory.

(Claim 1, step (a) in Tsuchiya)
7. In regard to claim 17, Tsuchiya teaches:
  - (New) The method as recited in Claim 15, further comprising:

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- comparing the at least one stored first signature bit of the first test signature to a second signature bit of a second test signature that is formed from an address applied at the cache memory.

(Abstract, lines (15-18) in Tsuchiya)

8. In regard to claim 18, Tsuchiya teaches:

- (New) The method as recited in Claim 15, further comprising:
- comparing the at least one stored first signature bit of the first test signature to a second signature bit of a second test signature that is transferred together with an address applied at the cache memory.

(Claim 1, step (f)-(3) in Tsuchiya)

9. In regard to claim 19, Tsuchiya teaches:

- (New) The method as recited in Claim 15, further comprising:
- storing a valid-invalid bit at least in duplicate in the cache memory.

(col. 5, lines (43-65) in Tsuchiya)

10. Claims 20 and 21 are not examined on the merit for being incomprehensible. See item 3.

11. In regard claim 22, Tsuchiya teaches:

- (New) The method as recited in Claim 15, wherein the data include instructions.

(Abstract in Tsuchiya)

12. In regard to claim 23, Tsuchiya teaches:

- (New) The method as recited in Claim 15, further comprising:

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- to a group of data and appertaining first test signatures, assigning in each case a first line index in the cache memory;  
comparing the first line index to a second line index applied at the cache memory; and  
retrieving the first line index from the cache memory by line decoding.

(Figure 2 in Tsuchiya)

13. In regard to claim 24, Tsuchiya teaches:

- (New) The method as recited in Claim 23, further comprising:
- generating an error signal as a function of a comparison result.

(Abstract, lines (15-18) in Tsuchiya)

14. In regard to claim 25, Tsuchiya teaches:

- (New) The method as recited in Claim 24, wherein the error signal is treated as a cache miss signal.

(Abstract in Tsuchiya)

15. In regard to claim 26, Tsuchiya teaches:

- (New) The method as recited in Claim 16, further comprising:
- detecting at least one error as a function of a respective comparison result; and  
if the at least one error is detected, loading the data into the cache memory in renewed fashion.

(Abstract in Tsuchiya)

16. Claims 27 and 28 are rejected for the same reasons as per claim 15.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

/Sam Rizk/

Examiner, Art Unit 2112